What is claimed is:

1. A process for producing a purified aqueous hydrogen peroxide solution comprising contacting an aqueous hydrogen peroxide solution containing metal ion impurities firstly with a H^+ type cation exchange resin, secondly with a carbonate ion (CO_3^{2-}) type or bicarbonate ion (HCO_3^-) type anion exchange resin, and thirdly with a H^+ type cation exchange resin.

2. A process for producing a purified aqueous hydrogen peroxide solution comprising contacting an aqueous hydrogen peroxide solution containing metal ion impurities firstly with a H^+ type cation exchange resin, secondly with a fluoride ion (F^-) type anion exchange resin, thirdly with a carbonate ion (CO_3^{2-}) type or bicarbonate ion (HCO_3^-) type anion exchange resin, and fourthly with a H^+ type cation exchange resin.

3. The process for producing a purified aqueous hydrogen peroxide solution as claimed in claim 1 or 2, wherein the aqueous hydrogen peroxide solution is

contacted with an adsorption resin before contacted with the H^+ type cation exchange resin.

4. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of claims 1 to 3, wherein said H^+ type cation exchange resin is regenerated by repeating a process, 2 or more times, in which the cation exchange resin is treated with a downward flowing inorganic acid aqueous solution and then washed with ultra-pure water.

5. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of claims 1 to 4, wherein the carbonate ion (CO_3^{2-}) type or bicarbonate ion (HCO_3^-) type anion exchange resin is regenerated by repeating a process, 2 or more times, in which the anion exchange resin is treated with a sodium carbonate or sodium bicarbonate aqueous solution and then washed with ultra-pure water.

6. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of claims 2 to 5, wherein the fluoride ion (F^-) type anion exchange resin is regenerated by repeating a process, 2

or more times, in which the anion exchange resin is treated with at least one fluorine compound aqueous solution selected from the group consisting of sodium fluoride, potassium fluoride and ammonium fluoride and then washed with ultra-pure water.

7. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of claims 3 to 6, wherein the adsorption resin is regenerated by treating with an alcohol aqueous solution as a regenerant and then washing with ultra-pure water.

8. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of claims 1 to 7, wherein the hydrogen peroxide concentration in the aqueous hydrogen peroxide solution is 40 to 70 % by weight.

9. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of claims 1 to 8, wherein said purified aqueous hydrogen peroxide solution is obtained by filtrating a solid impurities contained in the aqueous hydrogen peroxide

solution to which a flocculating agent has been preliminary added, by a fine filter.

10. The process for producing a purified aqueous hydrogen peroxide solution as claimed in claim 9, wherein said flocculating agent is at least one phosphorus based compound selected from the group consisting of phosphoric acid, polyphosphoric acid, acidic sodium pyrophosphate, aminotri(methylenephosphoric acid) and salt thereof, and ethylenediaminetetra(methylenephosphoric acid) and salt thereof.

11. The process for producing a purified aqueous hydrogen peroxide solution as claimed in claim 10, wherein said phosphorus based compound is added in an amount that the atomic ratio (Al/P) of the Al ion impurity contained in the aqueous hydrogen peroxide solution in terms of a metal atom Al to the phosphorus based compound in terms of a phosphorus atom is 0.045 or less.

12. The process for producing a purified aqueous hydrogen peroxide solution as claimed in any one of

claims 9 to 11, wherein the fine filter has an average pore size of 0.2 μm or less.